

REMARKS

Claims 1-15 are pending in this application. By this Amendment, claim 4 is amended to further distinguish over the applied art. No new matter is added by this Amendment.

Support for the language added to claim 4 can be found throughout the specification, for example in claim 1 and at page 4, lines 22-23 of the specification.

The courtesies extended to Applicant's representative by Examiner Nguyen at the interview held October 17, 2007, are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicant's record of the interview.

I. **Allowable Subject Matter**

Applicant notes with appreciation that claims 1-3, 6-10, 13 and 14 are in condition for allowance. In addition, for the reasons reiterated below and as noted in the Examiner Interview Summary, the amendments to claim 4 distinguish over the Brotzman reference.

II. **Rejections Relying Upon Brotzman**

Claims 4, 5, 11 and 12 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 7,052,777 ("Brotzman").

Claim 15 was rejected under 5 U.S.C. §102(e) as allegedly being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as allegedly being obvious over Brotzman.

These rejections are respectfully traversed.

Claim 4 recites a cerium-zirconium composite metal oxide, wherein a total mole number of Ce and Zr is at least 85% based on the total mole number of metal in the composite metal oxide and wherein CeO₂ forms a core surrounded by ZrO₂, and wherein an isoelectric point of the composite metal oxide is more than 3.5. Brotzman does not teach or suggest the composite metal oxide as recited in claim 4.

As acknowledged by Examiner Nguyen during the October 17, 2007 interview, nowhere does Brotzman teach or suggest any isoelectric point of the cerium-zirconium composite nanoparticle material taught therein, let alone an isoelectric point of more than 3.5 as recited in claim 4.

Moreover, the nanoparticles of Brotzman do not necessarily have the same characteristics as the composite metal oxide of the present claims because the product of Brotzman is prepared in a different manner than the product of independent claim 4. For example, Brotzman discloses a nanoparticle material comprising a plurality of cores and a plurality of shells where at least one of the cores is encapsulated by one of the shells. The core and shell of the material are separately formed. For example, the nanoparticles are coated to form the shell thereon, thereby forming a core shell structure. See column 3, lines 6-15 and lines 60-63 of Brotzman. On the other hand, the product of independent claim 4 is prepared in a manner that produces a composition with an isoelectric point of more than 3.5. For example, the present application describes that a cerium-zirconium composite metal oxide as recited in claim 4 may be obtained by mixing the ceria sol and a zirconium compound solution or a zirconia sol to prepare the composite metal oxide. See page 5, lines 16-23 of the present specification. As a result, the cerium-zirconium composite metal oxide is different from the composite obtained by the process of Brotzman. Therefore, because the product of claim 4 is produced in a different manner than the product of Brotzman, it cannot reasonably be concluded that the material in Brotzman has the same isoelectric point as the composite of claim 4.

For at least the foregoing reasons, Brotzman does not teach or suggest all of the features recited in claims 4, 5, 11, 12 and 15. Reconsideration and withdrawal of the rejection are thus respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-15 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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